

802.11g was the third modulation standard for Wireless LAN. It works in the 2.4 GHz band (like [802.11b](#)) but operates at a maximum raw data rate of 54 Mbit/s, or about 19 Mbit/s net throughput (identical to [802.11a](#) core, except for some additional legacy overhead for backward compatibility). **802.11g** hardware is fully backwards compatible with [802.11b](#) hardware. Details of making b and g work well together occupied much of the lingering technical process. In an 11g network, however, the presence of a legacy 802.11b participant will significantly reduce the speed of the overall **802.11g** network.

The modulation scheme used in **802.11g** is [orthogonal frequency-division multiplexing](#) (OFDM) copied from [802.11a](#) with data rates of 6, 9, 12, 18, 24, 36, 48, and 54 Mbit/s, and reverts to CCK (like the [802.11b](#) standard) for 5.5 and 11 Mbit/s and DBPSK/DQPSK+DSSS for 1 and 2 Mbit/s. Even though **802.11g** operates in the same frequency band as 802.11b, it can achieve higher data rates because of its heritage to [802.11a](#).

source - IEEE 802.11g-2003. (2009, June 8). In *Wikipedia, The Free Encyclopedia*. Retrieved August 15, 2009, from <http://en.wikipedia.org/wiki/802.11g>

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